Applied A.I. Solutions

Data Visualization Techniques

Professor
Daniel Vitaver, EMBA

daniel.vitaver@georgebrown.ca

DATA VISUALIZATION TECHNIQUES

Key Performance Indicators (KPIs)

Key performance indicator (KPI)

- A KPI is a business metric used to evaluate factors that are crucial to the success of an organization or project

- They measure activities and performance

- They usually trigger new strategies, business improvement, and appropriate levels of process monitoring and control

- Metrics focus on finance, productivity, QoS, safety, risk, time, cost, resources, scope, quality, and other process outputs

Source: Gartner

Key performance indicator (KPI) – cont'd

- Establish critical business requirements

- Identify specific, quantifiable process inputs and outputs

- Establish targets against which results can be scored

- Create the KPIs as a ratio between inputs and outputs (comparison)

Source: Gartner

Key Performance Indicators

- **Key Performance Indicators (KPIs) are the critical (key) indicators of progress toward an intended result.**

- KPIs provides a focus for strategic and operational improvement, create an analytical basis for decision making and help focus attention on what matters most.

- "What gets measured gets done." (Peter Drucker)

Key Performance Indicators – Best Practices

- Developing meaningful KPIs and measuring strategy execution is both an **art and a science**, involving a deep understanding of

  a. what to **measure**

  b. how to **measure**

  c. how to **analyze** performance information

  d. how to **report** and clearly inform others regarding desired results and performance

  e. how to use the information to **make better decisions**

Key Performance Indicators – Best Practices

- Managing with the use of KPIs includes setting <mark>targets</mark> (the desired level of performance) and tracking progress against that target.

- Managing with KPIs often means working to improve <mark>leading</mark> **indicators** that will later drive lagging benefits.

- Leading indicators are precursors of future success; <mark>lagging</mark> **indicators** show how successful the organization <u>was</u> at achieving results in the past.

Key Performance Indicators – Good KPIs:

- Provide ==objective evidence of progress== towards achieving a desired result

- ==Measure== what is intended to be measured to help inform better decision making

- Offer a ==comparison== that gauges the degree of performance change over time

- Can ==monitor== ==and track== efficiency, effectiveness, quality, timeliness, governance, compliance, behaviors, economics, project performance, personnel performance or resource utilization

- Are ==balanced== between leading and lagging indicators

- **Good plans use 5-7 KPIs to manage and track the progress of their plan**

Source: https://kpi.org/
On Strategy: www.onstrategyHQ.com

KPI Types	Description
Inputs	measure **attributes** (amount, type, quality) of resources consumed in processes that produce outputs
Process or activity	measures focus on how the **efficiency, quality, or consistency** of specific processes used to produce a specific output; they can also measure controls on that process, such as the tools/equipment used or process training
Outputs	are **result measures** that indicate how much work is done and define what is produced
Outcomes	focus on **accomplishments or impacts**, and are classified as **Intermediate** Outcomes, such as customer brand awareness (a direct result of, say, marketing or communications outputs), or **End** Outcomes, such as customer retention or sales (that are driven by the increased brand awareness)
Project	measures answer questions about the **status of deliverables and milestone progress** related to important projects or initiatives

Source: https://kpi.org/

Strategic Measurements

- **Strategic Measures** track progress toward strategic goals, focusing on intended/desired results of the End Outcome or Intermediate Outcome.

  o When using a balanced scorecard, these strategic measures are used to evaluate the organization's progress in <u>achieving its Strategic Objectives</u> depicted in each of the following four balanced scorecard perspectives:

    a. Customer/Stakeholder
    b. Financial
    c. Internal Processes
    d. Organizational Capacity

Source: https://kpi.org/

Operational and Other Measurements

- **Operational** Measures focus on <mark>operations and tactics</mark>, and designed to inform better decisions around day-to-day product / service delivery or other operational functions

- **Project** Measures focus on <mark>project progress and effectiveness</mark>

- **Risk** Measures focus on the <mark>risk factors</mark> that can threaten our success

- **Employee** Measures focus on the <mark>human behavior</mark>, skills, or performance needed to execute strategy

- **Etc**.

The anatomy of a structured KPI includes:

- **A quantifiable measure** – Every KPI must have a measure

- **A target** of accomplishment – Every KPI needs to have a target that matches your measure and the time period of your goal. These are generally a numeric value you're seeking to achieve

- **A data source** – Every KPI needs to have a clearly defined data source so there is no gray area in how each is being measured and tracked

- **Reporting Frequency** – Different KPIs may have different reporting needs, but a good rule to follow is to report on them at least monthly

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Technique to <mark>create your KPIs</mark>, questions to ask?

1. What is your desired outcome?

2. How does this outcome help achieve your vision of success?

3. How will you know you have achieved your outcome?

4. Is this a leading or a lagging indicator of performance?

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Anatomy of a KPI - example

1. Quantifiable target: 1,000 new customers
2. Timeframe of accomplishment: by the end of FY2021
3. Data Source: CRM Systems
4. Reporting Frequency: Monthly report
5. Target Audience: VP of Sales

KPI Examples

Sales KPIs
1. Number of New Contracts Signed Per Period
2. Dollar Value for New Contracts Signed Per Period
3. Number of Engaged Qualified Leads in Sales Funnel Per Period

Financial KPIs
1. Growth in Revenue
2. Net Profit Margin
3. Gross Profit Margin

Customer KPIs
1. Number of Customers Retained
2. Percentage of Market Share
3. Net Promotor Score

Operational KPIs
1. Order Fulfillment Time
2. Time to Market
3. Employee Satisfaction Rating

Marketing KPIs
1. Monthly Website Traffic
2. Number of Qualified Leads
3. Conversion Rate for Call-To-Action Content

Source: On Strategy: www.onstrategyHQ.com